

A NEW SUBSPECIES OF *CALLITHOMIA HEZIA* FROM ZULIA, VENEZUELA (ITHOMIIDAE)

JOHN H. MASTERS

Lemon Street North, North Hudson, Wisconsin 54016

Venezuelan lepidopterists have just recently begun penetrating into the Sierra de Perija, a northern offshoot of the Venezuelan Andes which forms the boundary between Colombia and Venezuela in the northwestern Venezuelan state of Zulia. Materials that have been brought back from this region have included a number of endemic subspecies and it is not surprising to find that the Perija population of *Callithomia hezia* Hewitson, a species known to display marked geographic variation, represents a distinctly marked and previously undescribed subspecies.

Callithomia (*Callithomia*) *hezia perija* Masters, new subspecies

This subspecies differs from the other six subspecies of *Callithomia hezia* by having a row of three separated and relatively small yellow patches in the middle of cells M_1 , M_2 and M_3 on the hindwing. Subspecies *baccata* Fox and *tridactyla* Hewitson have yellow patches on the hindwing, but they are much larger and touch each other basally.

Male Fig. 1 A & B: Appearance readily associated with *Callithomia hezia*. Forewing length: base to apex, 35 to 37 mm. Forewing breadth: apex to tornus, 20 to 21 mm; center of costal margin to tornus, 17 to 17.5 mm.

Upperside of forewing a deep black background color with a reddish brown streak in the basal area. Upperside of hindwing light brown in background color except a black margin which greatly widens in the apical area. Pattern elements composed of opaque yellow spots which include: one or two spots in the forewing cell; a double row of forewing spots including a single spot in one of the radial cells and in cell M_1 , and then two spots each in cells M_2 , M_3 , Cu_1 and Cu_2 ; and three relatively small, separated spots in the middle of cells M_1 , M_2 and M_3 on the hindwing.

Underside of both wings mirrors the appearance of the uppersides, except for the presence of five small white crescents present in the wing margins—two on the forewing and three on the hindwing.

Male genitalia Fig. 2 A, B & C: Shows no characteristics which might distinguish it from other subspecies of *Callithomia hezia*. The penis (Fig. 2C) is not forked; this is one of the characteristics that separates the nominate subgenus *Callithomia* Bates from subgenus *Leithomia* Masters.

Female Fig. 1 C, D & E. Appearance almost identical to male except for blunter and more rounded wings. Forewing length: base to apex, 35 to 38 mm. Forewing breadth: apex to tornus, 20 to 21 mm; center of costal margin to tornus, 19 to 20 mm. Yellow patches on hindwings, in two specimens, a bit larger than those of males. There is a series of six small white crescents along the ventral hindwing margin instead of three.

Holotype male: El Tucuco, Estado Zulia, Venezuela, September 1964, Albert Gadou collector. Length of forewing, base to tip, 35.5 mm.

Allotype female: El Tucuco, Estado Zulia, Venezuela, July 1968, Yuri Budokari

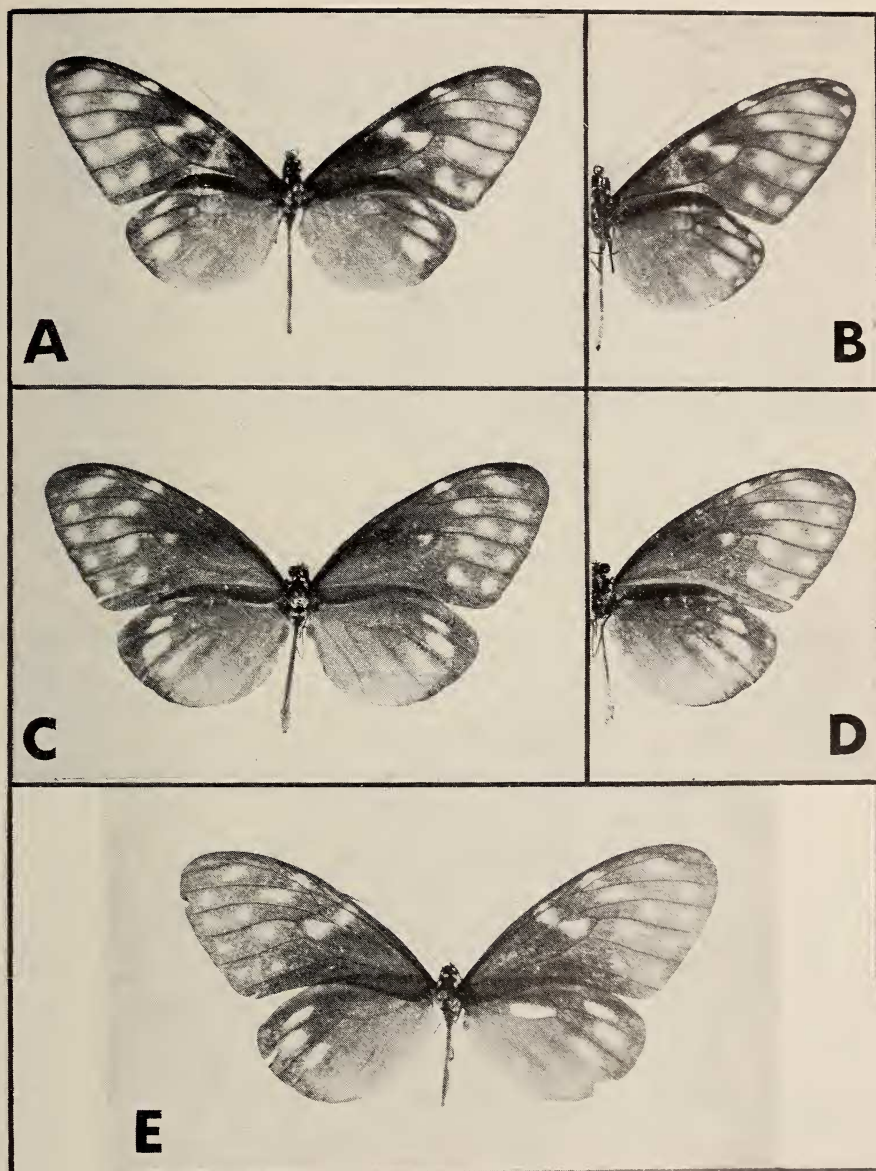


Fig. 1. *Callithomia hezia perija* new subspecies. Holotype male, El Tucuco, Zulia, Venezuela: (A) upperside, (B) underside. Allotype female, El Tucuco, Zulia, Venezuela: (C) upperside, (D) underside. Paratype female, Como del Tigre, Anduze, Colombia: (E) upperside. All specimens natural size.

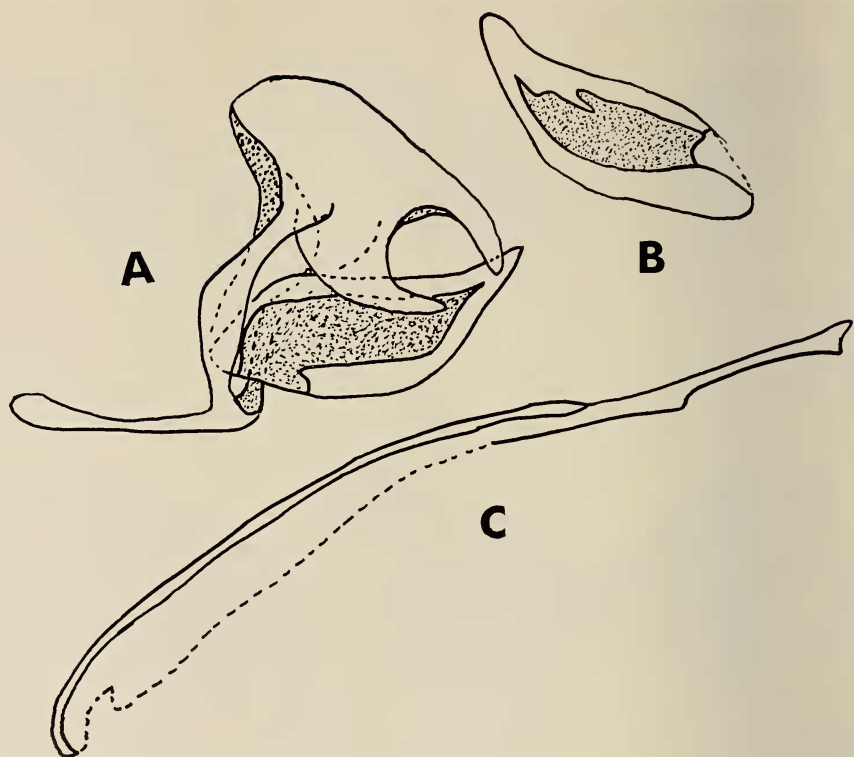


Fig. 2. Male genitalia of *Callithomia hezia perija*: (A) side view with left valve removed, (B) left valve, (C) penis.

collector. Length of forewing, base to tip, 36 mm. Holotype and allotype have been placed in the Carnegie Museum, Pittsburgh, Pennsylvania (type series number 674).

Paratopotypes: 3 males, 2 females in author's collection; 2 males and 2 females in collection of Harold Skinner, La Victoria, Venezuela. There are probably another two dozen specimens in other Venezuelan collections, but I have not personally examined them and am not including them in the type series. All of these are from the same locality as the holotype, various dates, 1964 to 1969, and various collectors.

Paratype: One female, Como del Tigre, Anduze, Colombia, Sept. 1943 (Fig. 1E) in the American Museum of Natural History, New York.

Callithomia hezia is a very distinct butterfly that can be confused with only one other species, its Mullerian mimic *Napeogenes peridia* (Hewitson) which is somewhat smaller. A key to the seven described subspecies of *Callithomia hezia* follows:

- | | |
|--|---|
| 1. Yellow spots on hindwing | 4 |
| Yellow spots not present on hindwing | 2 |
| 2. Yellow spots of forewing, including the antemarginal series, beyond the end
of the cell fused into a large patch extending from the costa to Cu ₁ | |
| <i>C. hezia wellingi</i> Fox, southern Mexico and Guatemala. | |

- Antemarginal spots of forewing separated and never included in a patch formed by fusion of the spots 3
3. Yellow antemarginal and postmedial series of forewing rather large and only narrowly separated by black which, especially in the apical part in some males, tends to be translucent
 *C. hezia hedila* Godman & Salvin, Guatemala and Honduras.
- Yellow antemarginal spots of forewing smaller than postmedian spots, always well separated by opaque black, but the postmedial series sometimes tending to fuse with the yellow spots in the end of the cell
 *C. hezia smalli* Fox, Coclé Province, Panama.
- All yellow spots on the forewing tiny and well separated from each other
 *C. hezia hezia* Hewitson, Nicaragua, Costa Rica and Panama.
4. Yellow spots of the hindwings only slightly larger than those of the forewings and discretely separated from each other
 *C. hezia perija* Masters, Sierra de Perija, Venezuela and Colombia.
- Yellow spots of the hindwings large, broad and fused together basally, but present in a single series *C. hezia tridactyla* Hewitson, Colombia.
- Yellow spots of the hindwings large, broad and fused together basally, but present in a double series with an outer marginal row of spots present
 *C. hezia baccata* Fox, Peru.

SOME FIELD NOTES ON *ISOPARCE CUPRESSI* BDV. (SPHINGIDAE)

During a collecting trip to the Wedge Plantation near McClellanville, Charleston County, South Carolina in mid-September of 1972, I had the opportunity to investigate the life histories of some of the local Lepidoptera. The larval habits of the sphingid, *Isoparce cupressi* Bdv., were of particular interest to me since my host, Dr. R. B. Dominick, had successfully reared a brood of this species ex-ovo on *Taxodium distichum* L. (Bald Cypress) in the late summer of 1971. A suspected habitat of the species, a small swamp surrounded by *T. distichum* and located near the Wedge Laboratory, was surveyed, and several well exposed and isolated trees of the foodplant were chosen for examination.

Concentrated searching of the lower, accessible branches of eight large cypress trees yielded 15 larvae—one 2nd instar, five 3rd instar, seven 4th instar, and two 5th instar larvae. Six of these were in the process of molting when found. All but one of the larvae were on the undersides of the branches of the foodplant, from approximately four to seven feet off the ground. The 2nd and 3rd instar larvae were always situated near the ends of the branches, on the midribs of the terminal pinnae. The location of the 4th instar larvae was usually in the middle of the branches, also on the midribs of the pinnae. A large and nearly mature 5th instar larva, was found resting in the woody crotch of two branches. Finally, the other 5th instar larva, covered with parasitic cocoons, was discovered sitting on the top of a dead branch, moribund and obviously near death.

Two viable ova and several hatched eggshells were collected on the undersides of the terminal needles of the *Taxodium* branches. Since these were always found singly and randomly deposited, it appears likely that this is the natural mode of oviposition.

Numerous jumping spiders and harvestmen were seen during the daily examinations of the cypress branches. Their suspected predatory behavior was confirmed when a small grey salticid was observed feeding on a wriggling 3rd instar *cupressi* larva that it had obviously just captured. Judging by the large numbers seen, it